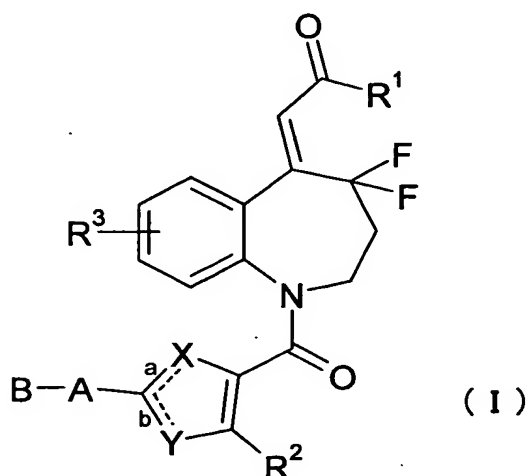


Claims

1. A 4,4-difluoro-1,2,3,4-tetrahydro-5H-1-benzazepine derivative represented by a formula (I) or a pharmaceutically acceptable salt thereof



[signs in the formula mean as follows

R^1 : amino which may be substituted, -OH or -O-lower alkyl,

R^2 : CF_3 or halogen,

R^3 : H or halogen,

a, b: each represents single bond or double bond, wherein one is single bond and the other is double bond,

-X-:

(1) -CH=CH-, -CH=N-, -N=CH-, -N=N- or -S- when a is single bond and b is double bond,

(2) -N- when a is double bond and b is single bond,

Y:

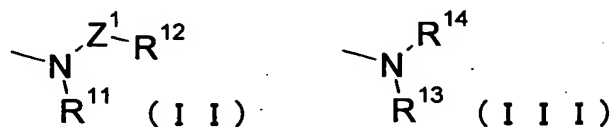
(1) CH or N when a is single bond and b is double bond,

(2) S when a is double bond and b is single bond,

-A-: -O-, -S-, -NH- or -N(lower alkyl), and

B: lower alkyl, lower alkenyl, lower alkynyl, cycloalkyl or aryl, each of which may be substituted].

2. The compound described in claim 1, wherein R^1 is a group represented by a formula (II), a formula (III), -OH or -O-lower alkyl



[signs in the formulae mean as follows

Z^1 : single bond, lower alkylene or -lower alkylene-C(=O)-,

R^{11} : lower alkyl which may be substituted with a group selected from the group consisting of -OH, -O-lower alkyl, -CO₂H, -CO₂-lower alkyl and carbamoyl which may be substituted with one or two lower alkyls, or -H,

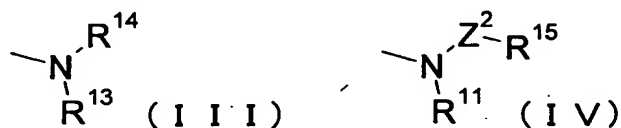
R^{12} :

(1) when Z^1 represents single bond or lower alkylene,

-H, -OH, -O-lower alkyl, -CO₂H, -CO₂-lower alkyl, carbamoyl which may be substituted with one or two lower alkyls, aryl which may be substituted, cycloalkyl which may be substituted, aromatic hetero ring which may be substituted or non-aromatic hetero ring which may be substituted,

(2) when Z^1 represents -lower alkylene-C(=O)-,

a group represented by the formula (III) or a formula (IV)



[signs in the formula mean as follows

Z^2 : single bond or lower alkylene, and

R¹⁵: -H, -OH, -O-lower alkyl, -CO₂H, -CO₂-lower alkyl, carbamoyl which may be substituted with one or two lower alkyls, aryl which may be substituted, cycloalkyl which may be substituted, aromatic hetero ring which may be substituted or non-aromatic hetero ring which may be substituted,
 R¹³, R¹⁴: together with the adjacent nitrogen atom, non-aromatic cyclic amino group].

3. The compound described in claim 2, wherein R¹ is a group represented by the formula (II) or formula (III).

4. The compound described in claim 3, wherein a is single bond, b is double bond, -X- is -CH=CH-, and -Y- is -CH-.

5. The compound described in claim 4, wherein R¹ is a group represented by the formula (II).

6. The compound described in claim 5, wherein -A- is -O-.

7. The compound described in claim 6, -B is lower alkyl which may be substituted.

8. The compound described in claim 7, wherein R² is trifluoromethyl, and R³ is -H or -F.

9. The compound described in claim 1, which is
 (2Z)-N-(2-amino-2-oxoethyl)-2-{4,4,7-trifluoro-1-[4-{{(2R)-2-fluoropropyl}oxy}-2-(trifluoromethyl)benzoyl]-1,2,3,4-tetrahydro-5H-1-benzazepin-5-ylidene}acetamide,

(2Z)-N-(2-hydroxyethyl)-2-{4,4,7-trifluoro-1-[4-{[(2S)-2-fluoropropyl]oxy}-2-(trifluoromethyl)benzoyl]-1,2,3,4-tetrahydro-5H-1-benzazepin-5-ylidene}acetamide,

(2Z)-N-(2-hydroxyethyl)-2-{4,4,7-trifluoro-1-[4-{[(2R)-2-fluoropropyl]oxy}-2-(trifluoromethyl)benzoyl]-1,2,3,4-tetrahydro-5H-1-benzazepin-5-ylidene}acetamide,

(2Z)-2-{4,4-difluoro-1-[4-{[(2R)-2-fluoropropyl]oxy}-2-(trifluoromethyl)benzoyl]-1,2,3,4-tetrahydro-5H-1-benzazepin-5-ylidene}-N-[(2S)-2,3-dihydroxypropyl]acetamide,

3-[[[(2Z)-2-{4,4,7-trifluoro-1-[4-{[(2R)-2-fluoropropyl]oxy}-2-(trifluoromethyl)benzoyl]-1,2,3,4-tetrahydro-5H-1-benzazepin-5-ylidene}acetyl)amino]propanamide, or

(2Z)-N-[(2R)-2,3-dihydroxypropyl]-2-{4,4,7-trifluoro-1-[4-{[(2R)-2-fluoropropyl]oxy}-2-(trifluoromethyl)benzoyl]-1,2,3,4-tetrahydro-5H-1-benzazepin-5-ylidene}acetamide,

or a pharmaceutically acceptable salt thereof.

10. A pharmaceutical composition which comprises the compound described in claim 1 as an active ingredient.

11. The pharmaceutical composition described in claim 10, which is an arginine vasopressin V₂ receptor agonist.

12. The pharmaceutical composition described in claim 10, which is a nocturia treating agent or a central diabetes insipidus treating agent.